

WHAT IS CLAIMED IS:

1. A messaging system capable of streaming data comprising:
 - at least one host computer, said host computer comprising a messaging platform upon which messaging applications are executed and a message store for storing messages received by said messaging platform;
 - at least one network interface unit (NIU) having a first interface to the messaging platform on the host computer for communicating between said NIU and said messaging platform and a second interface to a telephone network for receiving calls from said telephone network and communicating to external computer networks; and
 - at least one embedded services processor (ESP) operatively coupled to said first and second interfaces of said NIU, said ESP comprising a processor, a memory, and an operating system,
 - wherein said ESP is operable to execute a data streaming software application,
 - said data streaming software application operating on said ESP to execute one or more instructions that allow for the communication of data and operation of functions from said computer networks with said host computer and vice versa.
2. The messaging system as recited in claim 1, wherein said ESP further comprises a network interface that supports an IP protocol for communicating between said ESP and said external computer networks.
3. The messaging system as recited in claim 2, wherein said network interface comprises an Internet Protocol (IP) Socket Proxy.
4. The messaging system as recited in claim 3, wherein said Internet Protocol (IP) Socket Proxy comprises a Winsock Proxy.
5. The system recited in claim 1, wherein said operating system of said ESP comprises the Microsoft Windows NT operating system.

6. The system as recited in claim 1, wherein said data streaming software application comprises:

5 a communication interface module, said communication interface facilitating the communication of data between said messaging platform and said external computer networks; and

10 a command conversion module, said command conversion module converting commands from said messaging platform to commands consistent with said external computer networks syntax and vice versa.

15 7. The system as recited in claim 6, wherein said communication interface module comprises a socket manager controlling data communication sockets used for the communication of data from external computer networks to said messaging platform and vice versa.

20 8. The system as recited in claim 7, wherein said communication interface module is coupled to said external computer networks via a communications network, said communications network comprising any of a fixed-wire LAN, a wireless LAN, a fixed wire WAN, a wireless WAN, an fixed wire intranet, a wireless intranet, a fixed wire extranet, a wireless extranet, the Internet, and the wireless Internet.

25 9. The system as recited in claim 8, wherein said command conversion module cooperates with said communication interface module to communicate data to and from said messaging platform from and to said external computer networks.

10. The system as recited in claim 6, wherein said command conversion module further comprises a messaging platform-external computer network command conversion module an external computer network-messaging platform, said messaging-platform-external computer network command conversion module converting commands from said messaging platform to commands consistent with said external computer networks, and said external computer

network-messaging platform command conversion module converting commands from said external computer networks to commands consistent with said messaging platform.

11. The system as recited in claim 10, wherein said commands comprise commands indicative of data streaming.
12. The system as recited in claim 11, wherein said data streaming comprises Web-data streaming.
- 10 13. The system as recited in claim 12, wherein said external computer networks comprise Web clients capable of providing commands to said NIU and displaying communicated from said NIU.
- 15 14. In a messaging system having a host computer coupled to a network interface unit (NIU), a method to provide data streaming of data comprising the steps of:
 - providing a data streaming software application for execution on said NIU;
 - connecting said NIU to at least one external computer network such that data communication is realized between said NIU and said at least one external computer network, said at least one external computer network having computers operating various computing applications; and
 - communicating data by said at least one external computer network to said host computer of said messaging system through said NIU, and vice versa, to execute instructions in accordance with said computing applications operating on said computers of said external computer networks and said host computer.
- 25 15. The method as recited in claim 13, further comprising the step of providing an Embedded Services Processor (ESP) in said NIU such that said ESP is operatively coupled to said NIU to allow communication of data from said ESP to said host computer and back, wherein said ESP executes said data streaming software applications.

16. The method recited in claim 15, wherein said providing step further comprises initializing said ESP to cooperate with components of said messaging system and to communicate with other computing devices.

5 17. The method recited in claim 14, wherein said communicating step comprises using IP communication protocols and standards realized by an IP socket manager residing on said data streaming software applications to transfer data between said ESP and said external computer networks.

10 18. The method recited in claim 14, wherein said connecting step comprises providing computers having Web client computing applications capable of providing requests for data streaming and presenting streamed data.

15 19. A computer readable medium comprising computer-executable instructions for instructing a computer to perform the method recited in claim 14.

20 20. In a messaging system having a host computer operatively coupled to a network interface unit (NIU) having an embedded services processor (ESP) capable of executing software and communicating data in a variety of communication protocols and standards, a method to stream data to and from external communication networks coupled to external computer networks comprising the steps:

25 receiving requests indicative of data streaming functions by said external computers;
 responding to said requests by said host computer of said messaging platform; and
 communicating said responses by said messaging platform to said external computer networks.

30 21. The method as recited in claim 18, wherein said providing step comprises the step of:
 providing a "GET" command in said request, said "GET" command indicative of instructions to stream data stored on said host computer of said messaging platform to said external computer networks.

22. The method as recited in claim 20, wherein said providing step comprise the steps of:
providing a "PUT" command in said request, said "PUT" command having attached
thereto data for streaming, said "PUT" command indicative of instructions to stream data
5 from said external computer networks to said host computer of said messaging platform for
storage.
23. The method as recited in claim 20, wherein said responding step comprises the steps
of:
10 receiving said request provided by said external computer networks by said NIU of
said messaging platform, said NIU being coupled to said external computer networks through
a communications interface; and
converting said requests from said external computer networks to commands
consistent with command syntax of said host computer of said messaging platform.
15
24. The method as recited in claim 23, further comprising the steps of:
processing said converted commands to store data for requests from said external
computer networks requesting the storage of data;
providing a response indicator to said external computer networks to indicate that the
20 request to store data has been completed, said response indicator being converted to a
command syntax consistent with said external computer networks for processing by said
external computer networks.
25. The method as recited in claim 23, further comprising the step of:
25 processing said converted commands to provide desired data to respond to requests
requesting desired data,
wherein said desired data is demarcated by a unique ID, said converted
commands having therein said unique ID for processing by said host computer; and
retrieving said desired data by said host computer of said messaging platform for
30 communication to said external computer networks,

wherein said retrieved desired data having therein a command consistent with the command syntax of said external computer networks for processing by said external computer networks.

5 26. A messaging system capable of streaming data comprising:

at least one host computer, said host computer comprising a messaging platform upon which messaging applications are executed and a message store for storing data received by said messaging platform;

10 at least one network interface unit (NIU) having a first interface to the messaging platform on the host computer for communicating data between said NIU and said messaging platform and a second interface to external computer networks for communicating data between said NIU and said external computer networks; and

15 at least one embedded services processor (ESP) operatively coupled to said first and second interfaces of said NIU, said ESP comprising a processor, a memory, and an operating system,

wherein said ESP is operable to execute a data streaming software application, said data streaming software application operating on said ESP to execute one or more instructions that allow for the communication of data and operation of functions from said computer networks with said host computer and vice versa.

20

27. The system as recited in claim 26, wherein said data streaming software application comprises:

a data streaming service (DSS), said data streaming service manager processing and responding to commands communicated from cooperating Web clients of said external computer networks; and

25 a data streaming DLL (DSD), said DSD cooperating with said DSS to process said Web client commands.

28. The system as recited in claim 27, wherein said DSD converts commands originating from said Web clients of said external computer networks into a command type capable of

PATENT
TN210; TN243/USYS-0067

being processed by said host computer.

29. The system as recited in claim 27, wherein said DSD communicates commands originating from said Web clients of said external networks and converted commands to said 5 host computer and vice versa through a MultiBus.
30. The system as recited in claim 27, further comprising at least one thread, said one thread executing said DSS and said DLL.
- 10 31. The system as recited in claim 30, further comprising a DSS thread manager, said DSS thread manager cooperating with said at least one threads to route any of data, commands, and operations for processing by said thread to realize data streaming services.
- 15 32. The system as recited in claim 26, wherein said NIU communicates to said external computer networks through at least one TCP/IP network operating the TCP/IP communications protocol.

CODE: 20250000000000000000000000000000